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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/714,680 | 11/14/2003 | John R. Mick JR. | 5646-118 | 2326 |

20792 7590 12/07/2005

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| EXAMINER |
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SCHLIE, PAUL W

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| ART UNIT | PAPER NUMBER |
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2186

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/714,680 | Applicant(s) MICK ET AL. | |
| | Examiner Paul W. Schlie | Art Unit 2186 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/14/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-20 have been reviewed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-8 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mick et al. (US App. 10/714,680) in further view of Viswanadham et al. (6,424,659).

As per claims 1, 7 and 14, Mick et al. acknowledges as prior art an integrated search engine device comprising: an interface with a supervising host NPU which may utilize mailboxes (which are themselves typically implemented utilizing FIFOs and corresponding interrupt logic to indicate the availability of new messages); a content addressable memory (CAM) core that is configured to support potentially multiple searchable databases and entries therein; and control logic and associated entry aging enable and activity state storage arrays utilized to control and determine the aging beyond some threshold and/or availability of corresponding associated associative database entries within a CAM core; (see prior art figures 1-2A-B); but the disclosed prior art does not explicitly teach that the results of this aging determination may be reported to a supervising NPU host. However Viswanadham et al. teaches that aged associative database entry status may be explicitly reported to a supervising host (column 19 lines 12-18). It would be obvious to one of ordinary skill in the art at the time

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of the disclosed invention to combine that acknowledged by Mick et al. as prior art, with that explicitly taught by Viswanadham et al., for the benefit of enabling a supervising host to periodically determine the status of the associative entries within a search engine device as may be desired.

As per claims 2-6, 8 and 15-17, being themselves dependant on claims 1, 7, 14, or dependants inclusively, official notice is given that it is considered inherent and/or obvious to one of ordinary skill in the art at the time of the disclosed invention to enable age/availability reporting on a per-entry basis, as for example entries which are deemed permanent would likely be desired to be exempt from aging and/or corresponding reporting within any database they've been associated with; where any remaining difference between that which is claimed, and that which is known, is not considered to be sufficient to patentably distinguish over the prior art.

4. Claim 9-13 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mick et al. (US App. 10/714,680) and Viswanadham et al. (6,424,659) in further view of Cheng (6,629,099).

As per claims 9 and 18, Mick et al. and Viswanadham et al. teach elements of a search engine device as disclosed both within these claims and above, however does not teach that such components may be depth-cascadable such that multiple devices may be configured to operate in unison on potentially multiple independent databases and corresponding associative entries therein. However Cheng teaches that multiple such devices may be either depth and/or breadth cascadable in a unified manor (figures 7-10, column 3 lines 20-21 and 38-40). It would be obvious to one of ordinary skill in

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the art at the time of the disclosed invention to combine that taught by Mick et al. and Viswanadham et al. with that taught by Cheng relevant to these claims, for the benefit of enabling the construction of a unified extensible multi-component search engine solution.


As per claims 10-13 and 19-20, being dependant on claims 9, 18, or dependants inclusively, official notice is given that it is considered inherent and/or obvious to one of ordinary skill in the art at the time of the disclosed invention to enable age/availability reporting on a per-entry basis, as for example entries which are deemed permanent would likely be desired to be exempt from aging and/or corresponding reporting within any database they've been associated with; where any remaining difference between that which is claimed, and that which is known, is not considered to be sufficient to patentably distinguish over the prior art.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul W. Schlie whose telephone number is 571-272-6765. The examiner can normally be reached on Mon-Thu 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 517-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


PIERRE BATAILLE
PRIMARY EXAMINER
12/03/05